ouisiana Legislative Audito

Report Highlights

LSU Agricultural Center

Louisiana State University System

January 2004



The Louisiana State University Board of Supervisors established the Center for Agricultural Sciences as a campus of the LSU System in 1972. In 1982, the board changed the name of the Center to the LSU Agricultural Center (LSU AgCenter). LSU is among 106 land grant institutions in the country that are responsible for carrying out a mission of three functions: teaching, research, and extension. This audit Research & Extension identifies the services provided by the LSU AgCenter, which

includes the Louisiana Agricultural Experiment Station and Louisiana Cooperative Extension Service. It also examines the relevance and effectiveness of certain LSU AgCenter research projects and extension programs.

Audit Results

RELEVANCE OF LSU AGCENTER ACTIVITIES

- The methods that the LSU AgCenter uses to assess stakeholder needs are sufficient.
- Survey respondents said that research projects and extension programs in our sample were relevant to their needs. For example:
 - 95.0% of the research stakeholders in our sample either agreed or strongly agreed that general research conducted by the LSU AgCenter was relevant to their needs.
 - 98.4% of childcare providers in our sample either agreed or strongly agreed that the training they received from the LSU AgCenter was relevant to them.
 - 82.9% of stakeholders in our sample said that Family Development programs offered by the LSU AgCenter were relevant to the needs of their communities.

EFFECTIVENESS OF LSU AGCENTER ACTIVITIES

- Because the evaluation methods used by the LSU AgCenter are not as thorough or rigorous as they could be, we could not determine how effective its activities are. The LSU AgCenter could improve its evaluation efforts by using or expanding the use of pre- and post-tests, follow-up surveys, direct observation, cost-benefit analyses, and other methods.
- Our evaluation of certain LSU AgCenter research projects and extension programs shows that stakeholders in our sample are satisfied with LSU AgCenter activities and have implemented recommendations made by the LSU AgCenter.
- We identified deficiencies in the way the LSU AgCenter reports outcome and impact statements.
- A centralized stakeholder database would help the LSU AgCenter improve its processes of communicating with stakeholders, disseminating research and extension information, and evaluating its programs statewide.

Grover C. Austin, **CPA**

First Assistant Legislative Auditor

Page 2 LOUISIANA LEGISLATIVE AUDITOR

Are LSU AgCenter activities relevant and effective?

What We Found

Relevance of LSU AgCenter Activities

◆ The methods that the LSU AgCenter uses to assess stakeholder needs are sufficient. These methods include

commodity groups, community focus forums, parish advisory committees, and parish reviews.

 Survey respondents either agreed or strongly agreed that sample research projects and extension



programs were relevant to their needs.

Research Survey Results

- 89.4% of survey respondents represented by six commodity groups and who were familiar with certain research projects indicated that the research was relevant.
- 95.0% of survey respondents who represented four commodity groups and who were familiar with general research conducted by the LSU AgCenter either agreed or strongly agreed that the research was relevant.

Extension Program Survey Results

- 98.4% of childcare providers who responded to our survey either agreed or strongly agreed that the childcare provider training they received from the LSU AgCenter was relevant.
- 82.9% of stakeholders we surveyed said that the Family Development programs offered by the LSU AgCenter were relevant to the needs of the people in their communities.

Effectiveness of LSU AgCenter Activities

- We were unable to determine the effectiveness of LSU AgCenter programs because the evaluation methods the AgCenter uses are not as thorough or rigorous as they could be. For example:
 - While some extension agents have conducted limited surveys at the state and local levels for certain activities, the LSU AgCenter has not conducted any formal statewide surveys to measure stakeholder satisfaction.

- The LSU AgCenter does not have a formal or consistent method of evaluating whether stakeholders have implemented what they learned from LSU AgCenter research and extension activities. In addition, the LSU AgCenter does not consistently evaluate the social or economic impact of its activities.
- We identified deficiencies in the way the LSU AgCenter reports outcome and impact statements. Reported outcomes and impacts do not contain all critical elements.
- Clear, measurable impact and outcome statements for research projects such as the cloning of goats for medicinal purposes could show the LSU



AgCenter's impact on the state.

- ◆ A centralized stakeholder database would improve communication and evaluation efforts.
 - The LSU AgCenter does not keep stakeholder information in a central location. In addition, much of the stakeholder information we obtained from parish offices was not current or accurate.
 - 30.4% of research stakeholders we surveyed either disagreed or strongly disagreed that research results are communicated effectively or said that they were not familiar with the research.
- We conducted evaluations of certain LSU AgCenter activities to illustrate evaluation methods the AgCenter could use. We found the following:
 - 72.7% to 100% of research stakeholders who responded to our survey said that they have implemented recommendations made in the research projects in our sample. Many said that implementing the recommendations has increased their productivity and profitability.
 - Most stakeholders we surveyed said that they were satisfied with the research and extension activities in our sample.
 - Students who participated in 4-H at two sample schools had higher LEAP scores and grade point averages than non-4-H students.

LOUISIANA LEGISLATIVE AUDITOR Page 3

Recommendations

- ✓ The LSU AgCenter should strengthen its oversight of advisory committees used to assess stakeholder needs. Specifically, the LSU AgCenter should develop policies and procedures that accomplish the following:
 - Ensure that all extension interests are represented by advisory committees
 - Help facilitate involvement of committee members
- ✓ The LSU AgCenter should determine whether legislative action is required to obtain access to the Department of Social Services' complaint database. If legislative action is required, the LSU AgCenter should work with legislative staff to develop appropriate legislation. Once access is gained, the LSU AgCenter should use information from the database to help plan the content of its childcare provider training programs.
- ✓ The LSU AgCenter should strengthen its evaluation efforts by using or expanding the use of the following evaluation methods:
 - Satisfaction surveys
 - Pre- and post-tests/or post- then pre-test surveys
 - Follow-up surveys
 - Direct observation
 - Existing records and data
 - Comparison groups
 - Long-term or longitudinal studies
 - Cost-benefit analyses
- ✓ The LSU AgCenter should collaborate with other colleges and schools within the LSU System to allow graduate students to conduct evaluations of its research and extension activities. This approach would give the students the opportunity to practice program evaluation concepts for school projects or theses and provide the AgCenter with evaluation resources at little or no cost.
- The LSU AgCenter should determine whether legislative action is necessary to obtain access to Department of Education student records. If legislation is needed, the LSU AgCenter should work with legislative staff to introduce appropriate legislation. The LSU AgCenter should use the student data in evaluations of the 4-H program. The LSU AgCenter should also determine whether other databases exist that could enhance its evaluation activities.

- The LSU AgCenter should continue to train its employees on how to develop and write outcome and impact statements. Future training should include an increased focus on how to develop proper outcome and impact statements that contain all necessary elements and describe achieved results in a specific manner.
- ✓ The LSU AgCenter should develop a centralized database of stakeholder information. The LSU AgCenter should also develop a process for keeping the data in this database current and accurate. A database of this type would help the LSU AgCenter distribute information and communicate with stakeholders more effectively and efficiently.

Matter for Legislative Consideration

The legislature may wish to consider passing legislation that gives the LSU AgCenter authority to use data from other state agencies including the Departments of Social Services and Education for planning and evaluation purposes. The authority should include safeguards to protect confidential data.

Louisiana Legislative Auditor 1600 N. 3rd Street P.O. Box 94397 Baton Rouge, LA 70804-9397

Need More Information?

For a copy of the complete performance audit report, visit our Web site at

www.lla.state.la.us.

Questions?

Call Grover Austin at 225-339-3800

This document is produced by the Legislative Auditor, State of Louisiana, Post Office Box 94397, Baton Rouge, Louisiana 70804-9397 in accordance with Louisiana Revised Statute 24:513. Fifty-six copies of this public document were produced at an approximate cost of \$86.43. This material was produced in accordance with the standards for state agencies established pursuant to R.S. 43:31. This document is available on the Legislative Auditor's Web site at www.lla.state.la.us.

In compliance with the Americans with Disabilities Act, if you need special assistance relative to this document, or any documents of the Legislative Auditor, please contact Wayne "Skip" Irwin, Director of Administration, at 225-339-3800.

STATE OF LOUISIANA

Louisiana State University System Louisiana State University Agricultural Center Baton Rouge, Louisiana

January 2004



DIRECTOR OF PERFORMANCE AUDIT

David K. Greer, CPA, CFE

This document is produced by the Legislative Auditor, State of Louisiana, Post Office Box 94397, Baton Rouge, Louisiana 70804-9397 in accordance with Louisiana Revised Statute 24:513. Fifty-one copies of this public document were produced at an approximate cost of \$252.96. This material was produced in accordance with the standards for state agencies established pursuant to R.S. 43:31. This document is available on the Legislative Auditor's Web site at www.lla.state.la.us. When contacting the office, you may refer to Agency ID No. 9726 or Report ID No. 03902958 for additional information.

In compliance with the Americans With Disabilities Act, if you need special assistance relative to this document, or any documents of the Legislative Auditor, please contact Wayne "Skip" Irwin, Director of Administration, at 225/339-3800.

Table of Contents

Legislative Auditor's Transmittal Letter	iii
Executive Summary	V
Introduction	
Audit Initiation and Objective	1
Legal Authority, Mission, and Goals	1
Funding and Staffing.	2
Organization	3
Services and Stakeholders	5
Louisiana Agricultural Experiment Station	5
Louisiana Cooperative Extension Service	7
LSU AgCenter Stakeholders	8
Issues for Further Study	9
Relevance and Effectiveness of LSU AgCenter Activities Are LSU AgCenter Activities Relevant and Effective?	11
LSU AgCenter's Methods for Assessing Stakeholder Needs Are Sufficient	11
Needs Assessment Methods for Research Projects	11
Needs Assessment Methods for Extension Activities	12
Survey Respondents Said Sample Research Projects and Extension Programs Are Relevant to Stakeholder Needs	14
Research Projects	14
Extension Programs	15
Improved Evaluation Methods Would Help LSU AgCenter Measure Effectiveness of Research and Extension Activities	16
Stakeholder Satisfaction	16
Stakeholders' Implementation of What Was Learned	17
Social and/or Economic Impact	
Improved Reporting of Outcomes and Impacts Would Better Demonstrate LSU AgCenter's Accomplishments	
Centralized Database Would Improve Communication and Evaluation Efforts	

Exhibits		
Exhibit 1:	LSU AgCenter Performance Information	2
Exhibit 2:	Expenditures by Source of Funds, Fiscal Year 2003	2
Exhibit 3:	Approximate Number of Full-Time Equivalents by Program Area, Fiscal Year 2003	3
Exhibit 4:	LSU AgCenter Organizational Structure	4
Exhibit 5:	Research Stations and Their Focus Areas	5
Exhibit 6:	Primary Program Areas, Focus Areas, Man Days, and Educational Contacts, Louisiana Cooperative Extension Service, Fiscal Year 2003	7
Exhibit 7:	LSU AgCenter Regions and Research Stations	8
Exhibit 8:	Examples of LSU AgCenter Stakeholders	9
Exhibit 9:	Partial Results of Surveys on Relevance of Research	15
Exhibit 10:	Percentage of Sample 4-H and Non-4-H Students With LEAP Scores at Advanced or Mastery Level	20
Exhibit 11:	Percentage of Sample 4-H and Non-4-H Students With Grade Point Averages of 3.0 and Above	21
Appendix	es	
Appendix A	: Audit Scope and Methodology	A.1
Appendix B	Summary of Matter for Legislative Consideration and Recommendations	B.1
Appendix C	: Summary of Results of Surveys on Specific Research Projects	
Appendix D	: Summary of Results of Survey on General Research by Commodity Group	D.1
Appendix E	Summary of Results of Survey on Childcare Provider Training	E.1
Appendix F	Summary of Results of Telephone Survey on Family and Consumer Sciences - Family Development	F.1
Appendix G	: LSU AgCenter's Response	G.1



OFFICE OF LEGISLATIVE AUDITOR

STATE OF LOUISIANA BATON ROUGE, LOUISIANA 70804-9397

1600 NORTH THIRD STREET POST OFFICE BOX 94397 TELEPHONE: (225) 339-3800 FACSIMILE: (225) 339-3870

January 14, 2004

The Honorable Donald Hines,
President of the Senate
The Honorable Joe R. Salter,
Speaker of the House of Representatives

Dear Senator Hines and Representative Salter:

This report gives the results of our performance audit of the Louisiana State University Agricultural Center (LSU AgCenter). The audit was conducted under the provisions of Title 24 of the Louisiana Revised Statutes of 1950, as amended.

The report contains our findings, conclusions, and recommendations. We have also identified one matter for legislative consideration. Appendix F contains the LSU AgCenter's response to the audit. I hope this report will benefit you in your legislative decision-making process.

Sincerely,

Grover C. Austin, CPA

First Assistant Legislative Auditor

GCA/dl

[LSUAGCTR03]



Office of Legislative Auditor

Performance Audit Louisiana State University System Louisiana State University Agricultural Center Executive Summary

This audit identifies the programs provided by the Louisiana State University Agricultural Center (LSU AgCenter), which includes the Louisiana Agricultural Experiment Station and Louisiana Cooperative Extension Service. It also examines the relevance and effectiveness of certain LSU AgCenter research projects and extension programs. The results of the audit are as follows:

RELEVANCE OF LSU AGCENTER ACTIVITIES

- The needs assessment methods that the LSU AgCenter uses to assess client needs are sufficient. (See pages 11 through 14 of the report.)
- Survey respondents either agreed or strongly agreed that research projects and extension programs in our sample were relevant to their needs. For example,
 - 95.0% of the stakeholders in our sample said that general research conducted by the LSU AgCenter was relevant to their needs.
 - 98.4% of childcare providers in our sample said that the training they received from the LSU AgCenter was relevant to them.
 - 82.9% of stakeholders in our sample agreed that Family Development programs offered by the LSU AgCenter were relevant to the needs of their communities.

(See pages 14 through 16 of the report.)

EFFECTIVENESS OF LSU AGCENTER ACTIVITIES

- We could not determine how effective LSU AgCenter activities are because the evaluation methods used by the LSU AgCenter are not as thorough or rigorous as they could be. The LSU AgCenter could improve its evaluation efforts by using or expanding the use of pre- and post-tests, follow-up surveys, direct observation, cost-benefit analyses, and other methods. For instance, our limited evaluation of the impact of 4-H on school performance showed that students at two schools who were enrolled in 4-H had higher grade point averages and LEAP scores than students not enrolled in 4-H. (See pages 16 through 24 of the report.)
- Our evaluation of certain LSU AgCenter research projects and extension programs shows that
 stakeholders in our sample are satisfied with LSU AgCenter activities and have implemented
 recommendations made by the LSU AgCenter. In addition, some stakeholders said that certain
 LSU AgCenter research has helped improve their profitability and productivity. Improved
 evaluation methods would help the LSU AgCenter measure its accomplishments statewide. (See
 pages 16 through 24 of the report.)
- We identified deficiencies in the way the LSU AgCenter reports outcome and impact statements. (See pages 24 through 26 of the report.)
- A centralized database would help the LSU AgCenter improve its processes of communicating with stakeholders, disseminating research and extension information, and evaluating its programs statewide. (See pages 26 through 27 of the report.)

Introduction

Audit Initiation and Objective

We conducted this performance audit under the provisions of Title 23 of the Louisiana Revised Statutes of 1950, as amended. Louisiana Revised Statute (R.S.) 23:522 establishes the Louisiana Performance Audit Program, which requires that a performance audit be conducted within each state department, including Higher Education, within a seven-year period. The Legislative Audit Advisory Council approved an audit of the Louisiana State University System in February 2003. We focused the audit on the Louisiana State University Agricultural Center (LSU AgCenter).

Our audit objective is as follows:

⇒ Are LSU Agricultural Center activities relevant and effective?

Appendix A contains our audit scope and methodology. Other appendixes are as follows:

- Appendix B contains a matter for legislative consideration and a list of agency recommendations.
- Appendix C contains a summary of the results of our survey on specific research projects.
- Appendix D contains a summary of the results of our survey on general research by commodity group.
- Appendix E contains a summary of the results of our childcare provider training survey.
- Appendix F contains a summary of the results of our telephone survey on Family and Consumer Sciences Family Development.
- Appendix G contains the LSU AgCenter's response to the audit.

Legal Authority, Mission, and Goals



Article 8, Section 7 of the 1974 Louisiana Constitution established the Louisiana State University System. In 1972, the LSU Board of Supervisors established the Center for Agricultural Sciences and Rural Development based on the recommendation of a special committee that suggested that agricultural activities have an identity separate from any existing campuses. In 1982, the board changed the name of the center to the LSU Agricultural Center (LSU AgCenter).

LSU is among 106 land grant institutions in the country that are responsible for carrying out a mission comprising three functions: teaching, research, and extension. The land grant system and its functions are established by federal laws. The Hatch Act of 1887 established

agricultural experiment stations for research activities. The Smith Lever Act of 1914 established cooperative extension activities. Exhibit 1 shows performance information for LSU AgCenter activities.

Exhibit 1 LSU AgCenter Performance Information

MISSION	To enhance the quality of life for people through research and educational programs that develop the best use of natural resources, conserve and protect the environment, enhance development of existing and new agricultural and related enterprises, develop human and community resources, and fulfill the acts of authorization and mandates of state and federal legislative bodies
GOALS	To strengthen the productivity, profitability, and competitiveness of Louisiana's agriculture, forestry, and fisheries while enhancing the environment and wise use of natural resources
	To build leaders and good citizens through 4-H youth development
	To implement nutrition, health, family, and community development programs to enhance the quality of life of Louisiana citizens
Source: Prepare	ed by legislative auditor's staff using information in the fiscal year 2003 Executive Budget.

Funding and Staffing

The LSU AgCenter is funded through federal, state, local, and private funds. In fiscal year 2003, the state contributed over \$71 million to the LSU AgCenter. Local governments provided office space, utilities, and other in-kind contributions. Exhibit 2 shows actual expenditures by source of funds for fiscal year 2003.

Exhibit 2
Expenditures by Source of Funds
Fiscal Year 2003

Funding Source	Expenditures	Percent of Total
State General Fund	\$71,688,802	65.5
Federal Funds	10,584,992	9.7
Self-Generated	6,775,713	6.2
State and Federal Governmental		
Grants and Contracts	13,635,655	12.5
Private Grants and Contracts	3,025,419	2.8
Local Funds	932,079	0.9
Gifts	2,651,541	2.4
Total	\$109,294,201	100.0
Courses Dropored by logislative auditor's staff	·i i C	ided by I CII A a Comton

Source: Prepared by legislative auditor's staff using information provided by LSU AgCenter.

Introduction Page 3

According to an LSU AgCenter official, most of the LSU AgCenter's expenditures are for salaries, benefits, and other compensation. In fiscal year 2003, approximately 79% of the AgCenter's total expenditures were for personnel costs. The AgCenter employed approximately 1,423 full-time equivalents (FTE) in that fiscal year. Exhibit 3 shows the distribution of FTE among the main program areas.

Exhibit 3
Approximate Number of Full-Time Equivalents by Program Area
Fiscal Year 2003

Program Area	Faculty	Administrative, Professional, and Support Personnel	Total FTE by Program Area	
Research	177	204	381	
Extension	358	35	393	
Administration	19	53	72	
Classified	0	577	577	
Total	554	869	1,423	
Source: Prepared by legislative auditor's staff using information provided by LSU AgCenter.				

The 1,423 total FTE represents a decrease of 46 FTE from fiscal year 2002. According to the chancellor, this reduction was due mainly to reorganization of the LSU AgCenter and early retirement options. The reorganization of the LSU AgCenter and its current structure are described in the section below.

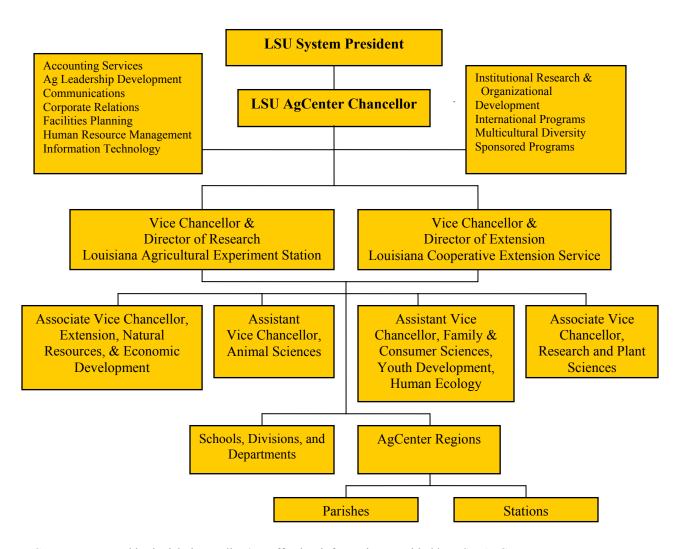
Organization

In 2001, the LSU AgCenter reorganized its structure in an effort to consolidate activities and minimize administrative resources. The three main components of the reorganization are as follows:

- 1. The merger of extension and research units
- 2. The creation of eight regions throughout the state and the establishment of regional directors who oversee both research and extension functions
- 3. The establishment of joint research and extension programs

Exhibit 4 on the following page illustrates the current organizational structure of the LSU AgCenter.

Exhibit 4 LSU AgCenter Organizational Structure



Source: Prepared by legislative auditor's staff using information provided by LSU AgCenter.

Introduction Page 5

Services and Stakeholders

The LSU AgCenter is made up of two main units: the Louisiana Agricultural Experiment Station and the Louisiana Cooperative Extension Service. This section contains a brief description of these units and the services they provide.

Louisiana Agricultural Experiment Station

The Louisiana Agricultural Experiment Station's mission is to enhance the quality of life for Louisiana's citizens through basic and applied research. The Experiment Station accomplishes this mission by conducting research in various academic departments and at 19 research stations across the state. Exhibit 7 on page 8 shows the locations of the research stations.

Many faculty have joint appointments that divide their responsibilities among teaching, research, and/or extension between the main LSU campus and the LSU AgCenter. The results of research are demonstrated through field days at the research stations and other activities. In fiscal year 2003, eight of the 19 research stations held field days where scientists demonstrated the results of their research. Approximately 1,500 stakeholders attended those field days. Exhibit 5 shows the individual research stations and their focus areas.



Sugar Cane Field Day St. Gabriel/Sugar Research Station Iberville Parish

Exhibit 5 Research Stations and Their Focus Areas

Name of Research Station	Location of Research Station	Focus Area(s)
Aquaculture Research Station	East Baton Rouge	Commercial aquaculture production
Burden Research Station	East Baton Rouge	Horticultural projects relating to turf grass, vegetable crops, nursery production, ornamentals, and fruit crops
Calhoun Research Station	Ouachita	Fruit and vegetable crops, including southern pea, watermelon, peach, and okra, and testing turf grass performance

(continued on next page)

Name of Research Station	Location of Research Station	Focus Area(s)
Central Research Station	East Baton Rouge	Livestock improvement through genetics, animal nutrition, and animal health; plant science research in corn, soybean, and small grains pest management, varietal improvement, and cultural practices
Citrus Research Station	Plaquemines	Citrus and vegetables
Dean Lee Research Station	Rapides	Management systems for cotton, soybeans, corn, weed control, and beef cattle and performance testing of livestock
Hammond Research Station	Tangipahoa	Horticultural crops (mainly fruits and vegetables)
Hill Farm Research Station	Claiborne	Management systems for beef cattle, dairy cattle, forages, and forestry
Iberia Research Station	Iberia	Beef cattle and sugarcane research and forage, grain and oil crop germplasm evaluation
Idlewild Research Station	East Feliciana	Beef, forage, and tree fruit research as well as wildlife research in quail, turkey, and wildlife habitat management
Northeast Research Station	Tensas	Cotton, corn, soybean, forages, wheat, grain sorghum, and rice management systems with emphasis on agronomic systems and weed, insect, and disease control
Macon Ridge Research Station	Franklin	Cotton, corn, soybean, forages, wheat, grain sorghum, and rice management systems with emphasis on agronomic systems and weed, insect, and disease control
Pecan Research - Extension Station	Caddo	Plant pathology, entomology, and horticulture research association with commercial pecan production.
Red River Research Station	Bossier	Management systems for cotton, soybeans, greenhouse tomatoes, forage crops, small grains, and beef cattle
Rice Research Station	Acadia	All aspects of rice research
Rosepine	Vernon	Management systems for beef cattle and development and evaluation of forage crops in grazing systems
Southeast Research Station	Washington	Dairy nutrition and forages
St. Gabriel/Sugar Research Station	Iberville	Sugarcane research, including varietal development and management systems
Sweet Potato Research Station	Franklin	Foundation seed production, cultural practices research and variety development for sweet potatoes
Source: Prepared by leg	islative auditor's staff u	using information provided by LSU AgCenter.

Introduction Page 7

Louisiana Cooperative Extension Service



Extension Agent and Stakeholders

The Louisiana Cooperative Extension Service is responsible for statewide off-campus, informal teaching of agricultural and natural resource technology and management techniques. The Extension Service is also responsible for other programs focused on home economics, youth development, overall improvement of the state's economy, and efficient use of community and human resources. The programs are administered cooperatively with the United States Department of Agriculture - Cooperative State Research, Education, and Extension System, Louisiana State University, Southern University, and the state's 64 parishes. Extension agents located in each parish in the state extend information to communities.

The primary program areas of the Louisiana Cooperative Extension Service are Agriculture and Natural Resources, Family and Consumer Sciences, and 4-H Youth Development. Exhibit 6 shows the focus areas, reported man days, and reported educational contacts within those program areas. Man days illustrate the amount of time agents spend working in a particular program. Educational contacts are the number of people extension programs serve.

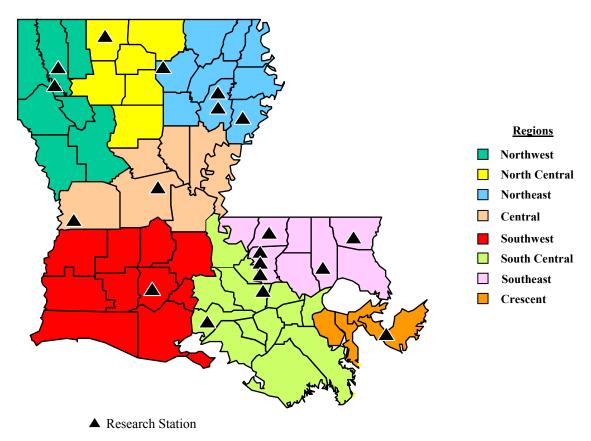
Exhibit 6
Primary Program Areas, Focus Areas, Man Days, and Educational Contacts
Louisiana Cooperative Extension Service
Fiscal Year 2003

Primary Program Areas [*]	Focus Areas	Reported Man Days	Reported Educational Contacts
Agriculture and Natural Resources	 Farm Financial Management Forestry and Wildlife Crop Production Animal Production Horticulture Aquaculture Environment/Watersheds 	12,137	690,998
Family and Consumer Sciences	 Nutrition and Health Expanded Food and Nutrition Program Family Nutrition Program Family Development Childcare Provider Training Parenting Education Family Resource Management 	22,128	1,423,315
4-H Youth Development	Character Education	21,773	1,992,321

^{*}Community Leadership & Economic Development programs are also extended through the primary program areas listed in this exhibit.

Source: Prepared by legislative auditor's staff using information provided by LSU AgCenter.





Note: Each parish has an extension office.

Source: LSU AgCenter.

LSU AgCenter Stakeholders

LSU AgCenter stakeholders include farmers, ranchers, consumers, communities, agricultural businesses, and agricultural consultants. Other stakeholders are rural and urban youth, rural and urban communities, farmers, ranchers, consumers, businesses, federal agencies, and families. Exhibit 8 on the following page shows examples of stakeholders that benefit from LSU AgCenter activities.

Introduction Page 9

Exhibit 8
Examples of LSU AgCenter Stakeholders

Stakeholder Types	Examples		
Commodity Groups	Dairy Industry Promotion Board		
Federal Government Agencies	Farm Service Agency		
State Government Agencies	Department of Education, Department of Health and Hospitals		
Local Government Agencies	Local Planning Commissions, Parish School Boards		
Researchers	Plant Pathologists		
Agricultural Suppliers	Fertilizer Manufacturers		
Other Organizations	Lake Pontchartrain Fishermen's Association, American Heart Association		
State Organizations	Louisiana Nursery and Landscape Association		
Non-profit Organizations	Agenda for Children		
Source: Prepared by legislative auditor's staff using information provided by LSU AgCenter.			

Issues for Further Study

- During our review of the childcare provider training program, we identified some problems with childcare regulation and complaint resolution. We did not pursue these problems as part of this audit. A review of childcare regulation that specifically focuses on how the state ensures that children receive quality care could provide meaningful results.
- During our review of family development programs, we noted that, in addition to the LSU AgCenter, several agencies provide the same or similar services, such as childcare provider training and parenting education. Further review to evaluate all providers of parenting education and/or childcare provider training could be initiated to determine who is providing this service in the most efficient and effective way.

Relevance and Effectiveness of LSU AgCenter Activities

Are LSU AgCenter Activities Relevant and Effective?

We found that the research projects and extension programs we reviewed are relevant to client needs. However, we were unable to determine whether certain LSU AgCenter activities are effective because the methods the LSU AgCenter uses to evaluate effectiveness are not as thorough or rigorous as they could be. The federal Agricultural Research, Extension, and Education Reform Act requires land-grant institutions to obtain stakeholder input about their activities. The act also requires institutions to report their outcomes and accomplishments. Without effective evaluation methods, the LSU AgCenter cannot accurately measure results and report outcomes and accomplishments.

LSU AgCenter's Methods for Assessing Stakeholder Needs Are Sufficient

Federal law requires land grant institutions to obtain stakeholder input for research and extension activities. Section 102(c) of the Agricultural Research, Extension, and Education Reform Act requires land grant institutions that receive federal formula funds to establish a process for obtaining stakeholder input. The act also requires institutions to submit annual reports that describe the processes used to obtain that input. Failure to comply with these requirements can result in the withholding of an institution's funds. To fulfill these mandates, the LSU AgCenter has used various methods to obtain stakeholder input and assess client needs as follows:

Needs Assessment Methods for Research Projects

❖ AgCenter Exchange (ACE) Groups

The Louisiana Agricultural Experiment Station has 29 ACE groups that are organized primarily around commodities of economic importance to Louisiana. The groups are composed of scientists and extension agents from various disciplines and locations who have common interests. The extension agents provide guidance, feedback, and suggestions from the field regarding emerging problems and research needs.

Research Proposal and Peer Review Process

Before any research project is conducted by the LSU AgCenter, the research scientists must submit a proposal that explains the research objectives and the need for the research. Each proposal is reviewed by five to eight peer scientists, the ACE Group leaders, and an extension representative. These reviews help ensure that the research projects are needed.

***** Commodity Groups

Commodity groups such as the Rice Research Board provide input to the LSU AgCenter on what kinds of research are needed. These groups meet to hear proposals for research and extension funding. The boards then contribute to those projects they deem most pertinent to their needs. In fiscal year 2002, commodity boards provided over \$2.5 million to help fund LSU AgCenter research and extension projects.



Rice Field Day
Rice Research Station Acadia Parish

Needs Assessment Methods for Extension Activities

Community Futures Forums

In 1999, the Louisiana Cooperative Extension Service held over 120 focus forums across the state to discuss and define their communities' current and future issues and needs. In response to these forums, the LSU AgCenter developed a strategic plan for each parish that outlines parish needs and LSU AgCenter programs that could address those needs.

Parish Advisory Committees and Regional Advisory Councils

The LSU AgCenter requires that each extension agent have a parish advisory committee composed of diverse stakeholders. The committees meet once or twice a year. At the meetings, the committees discuss current and emerging community needs with LSU AgCenter staff. The LSU AgCenter also has regional advisory councils to solicit input from regional stakeholders.

It should be noted that, although the parish advisory committees provide useful input on stakeholder needs, we identified the following problems with their use:

- Not all extension agents have parish advisory committees.
- Several members of parish advisory committees we contacted were not aware that they were on the committees.
- The contact information for many members in our sample regions was incorrect.

❖ Parish Reviews

The LSU AgCenter started conducting parish reviews in fiscal year 2002. The purpose of these reviews is to ensure that extension offices conduct relevant and quality programs that are focused on identified needs and issues. The LSU AgCenter reviews 16 parishes each year. In the reviews, a team of extension agents, extensions specialists, researchers, and administrators interviews a variety of extension staff and stakeholders and review documentation to assess whether the parishes are offering needed services.

The parish reviews have provided useful information on certain needs and programs. They have also helped to uncover some problems, which, according to LSU AgCenter officials, is a primary purpose of the reviews. The most common problems cited in the parish reviews we reviewed deal with advisory committees. These problems include a lack of involvement by committee members and the non-existence of committees.

Stakeholder Feedback

According to LSU AgCenter officials, stakeholders continually provide feedback to extension staff. This feedback helps the LSU AgCenter identify needs and develop relevant programs. For example, local police juries and other stakeholders may request certain services or provide feedback on current services.

Statistics

The LSU AgCenter reviews various statistics to help assess the need for certain programs. For example, to support the need for parenting education, the LSU AgCenter used the following statistics on Louisiana:

- 26% of children live in poverty.
- The teen birth rate is 62.1 per 1000 for females ages 15-19.
- Louisiana ranks 46th among states in infant mortality.
- In 2002, there were over 12,000 cases of child abuse.

We identified another source of statistical information that may be useful for the LSU AgCenter to use when planning the content of its childcare provider training classes. The Department of Social Services has a complaint database that contains complaints filed against childcare facilities. This database enabled us to determine what types of complaints (e.g., discipline related, health, etc.) were most prevalent in each parish. For example, we found that several childcare providers in the Northeast Region had supervision and discipline complaints filed against them. This information may indicate that childcare providers in that region need more training in those areas. However, the information in the database is confidential. Therefore, legislative action may be required for the LSU AgCenter to obtain access to it.

An official with the United States Department of Agriculture said that the methods used by the LSU AgCenter to assess stakeholder needs are common among land grant institutions. He also said that focus groups and advisory committees are prevalent in assessing stakeholder needs. In addition, most of the stakeholders who responded to our surveys said that LSU AgCenter research projects and extension programs are relevant to their needs. Thus, we concluded that the LSU AgCenter's needs assessment methods are sufficient. However, the LSU AgCenter could improve its oversight of parish advisory committees.

Recommendation 1: The LSU AgCenter should strengthen its oversight of parish advisory committees used to assess stakeholder needs. Specifically, the AgCenter should develop policies and procedures that accomplish the following:

- Ensure that all extension interests are represented by parish advisory committees
- Help facilitate involvement of committee members

Summary of Management's Response: The LSU AgCenter agrees with this recommendation and plans to develop a parish advisory committee agent training program.

Recommendation 2: The LSU AgCenter should determine whether legislative action is required to obtain access to the Department of Social Services' complaint database. If legislative action is required, the AgCenter should work with legislative staff to develop appropriate legislation. (See Matter for Legislative Consideration 1 on page 24.) Once access is gained, the AgCenter should use information from the database to help plan the content of its childcare provider training programs.

Summary of Management's Response: The LSU AgCenter agrees with this recommendation and will evaluate what actions may be necessary to gain access to the database.

Survey Respondents Said Sample Research Projects and Extension Programs Are Relevant to Stakeholder Needs

Research Projects

We selected a sample of six specific research projects completed in calendar years 2000 and 2001. We then surveyed a total of 264 clients from the six commodity groups that were represented in the projects. We received 67 responses (i.e., a 25.4% response rate). In the survey, we asked whether the six research projects were relevant to the needs of the clients represented by the six commodity groups. Of the 47 respondents who said that they were familiar with those research projects, 42 (89.4%) said that the research was relevant to their needs.

We also asked clients of four of the commodity groups (beef, dairy, mayhaw, and soybean) whether general research conducted by the LSU AgCenter is relevant to their needs. Forty respondents said they were familiar with general research of the LSU AgCenter. Of those 40 respondents, 38 (95.0%) either agreed or strongly agreed that the research is relevant.

Exhibit 9 shows the survey results discussed in this section. A summary of the survey results can be found in Appendixes C and D.

Exhibit 9 Partial Results of Surveys on Relevance of Research

	Specific Research Projects Are the results of these projects relevant to you?				General Research Research conducted by the LSU AgCenter is relevant to me.			
	Yes y Number %		No		Agree or Strongly Agree		Disagree or Strongly Disagree	
Commodity Group			Number	%	Number	%	Number	%
Beef	4	80.0%	1	20.0%	8	88.9%	1	11.1%
Dairy	5	100.0%	0	0.0%	9	100.0%	0	0.0%
Mayhaw	8	80.0%	2	20.0%	13	92.9%	1	7.1%
Soybean	8	100.0%	0	0.0%	8	100.0%	0	0.0%
Rice	16	88.9%	2	11.1%	N/A	N/A	N/A	N/A
Oyster	1	100.0%	0	0.0%	N/A	N/A	N/A	N/A
Total	42	89.4%	5	10.6%	38	95.0%	2	5.0%
Source: Prepa	red by legisl	ative audito	r's staff usin	g survey re	sults.	<u></u>		
N/A: Not aske	ed.							

Extension Programs

We sent a survey to 162 childcare providers in four sample regions (Central, Crescent, Northeast, and Northwest) who attended training classes conducted by the LSU AgCenter in fiscal year 2003. We received responses from 62 (38.3%) of the providers. Sixty-one of the 62 respondents (98.4%) either agreed or strongly agreed that the training they received was relevant to them as childcare providers. In addition, all of the respondents either agreed or strongly agreed that the training materials were useful. A summary of the survey results can be found in Appendix E.

One respondent said that she would like to attend more classes that teach staff to be more professional and dependable. Another respondent suggested more hands-on classes and discussions about how to handle different situations. Overall, however, the respondents said that the training they received from the LSU AgCenter was relevant to their needs.

We also conducted a telephone survey of 47 Family and Consumer Sciences - Family Development stakeholders in the four sample regions. One of the purposes of this survey was to determine whether certain Family Development programs the LSU AgCenter conducted in fiscal

year 2003 were relevant to their needs. Of the 41 stakeholders who responded to the question concerning relevance of programs, 34 (82.9%) said that the programs were relevant to the needs of the people in their communities. Appendix F contains a summary of the results of this survey.

Improved Evaluation Methods Would Help LSU AgCenter Measure Effectiveness of Research and Extension Activities

As a recipient of public funding, the LSU AgCenter must demonstrate that its activities provide sufficient public benefits. Federal legislation such as the Government Performance and Results Act and Agricultural Research, Extension, and Education Reform Act requires the merger of fiscal accountability and program evaluation. In addition, the LSU AgCenter's goals aim to improve the quality of life for stakeholders and the productivity and profitability of the state's agricultural industry. Effective evaluation methods are needed to determine whether the LSU AgCenter is meeting its goals.

We reviewed the evaluation procedures the LSU AgCenter uses for general research and extension activities. The purpose of our review was to determine how the LSU AgCenter evaluates the effectiveness of those activities. According to evaluation literature, an effective evaluation process should determine one or more of the following results:

- 1. Stakeholders are satisfied with the services provided.
- 2. Stakeholders have implemented what they learned.
- 3. Stakeholders have been impacted socially and/or economically by the services provided.

The LSU AgCenter's evaluation and measurement of these criteria are summarized in the following sections. In these sections, we also discuss how the LSU AgCenter's evaluation and measurement methods compare to best practices. Examples of evaluations we conducted in each of these areas are also included in each section. This information can help the LSU AgCenter improve its evaluation efforts.

1. Stakeholder Satisfaction

We found that some extension agents have conducted limited surveys at the state and local levels of certain educational classes or aspects of programs. For instance, 4-H specialists conducted a survey on the 4-H Short Course. The survey was in a webbased form that allowed attendees to complete the survey online. The survey results showed that 97.9% of the Short Course attendees cited Short Course as a positive learning experience. In addition, 90.6% said that Short Course increased their desire to obtain a college education.



4-H Short Course Group

Also, the LSU AgCenter said that stakeholders provide informal continual feedback on their satisfaction with extension programs and research projects. While informal feedback can be useful for some purposes, it does not provide a full evaluation of these activities. The LSU AgCenter should conduct a formal statewide survey that evaluates whether stakeholders are satisfied with its activities.

Other states have conducted satisfaction surveys of their programs. The University of Florida and Rutgers Cooperative Extension both have publications outlining processes for sampling and conducting satisfaction surveys. In addition, provisions of the Government Performance and Results Act include customer satisfaction measures as a key component of performance measurement. Satisfaction surveys would help the LSU AgCenter assess the quality of its research projects and extension programs, including both strengths and weaknesses. Quantitative data from surveys would also help the LSU AgCenter measure satisfaction and market its impacts with more credibility.

The limited surveys we conducted illustrate how the LSU AgCenter could obtain information on the satisfaction level of its stakeholders. The surveys show that, overall, respondents are satisfied with the LSU AgCenter activities covered by the surveys. For example, our survey results show that almost all respondents who were familiar with general research conducted by the LSU AgCenter were satisfied with the research. Our survey results also show that all childcare providers in our sample were satisfied with the childcare provider training that the LSU AgCenter conducted in fiscal year 2003. Our telephone survey shows similar results for certain other extension programs. If the LSU AgCenter conducted similar statewide evaluations, it could use the survey results to market its programs and document their impact. It could also use the results to assess differences in program quality among regions and programs and give direction for program improvements.

2. Stakeholders' Implementation of What Was Learned

Agriculture Extension and Research

We found that some LSU AgCenter staff survey stakeholders in an effort to determine whether they adopted LSU AgCenter recommendations or intended to adopt them. For example, extension agricultural specialists survey specific commodity groups (e.g., rice, soybeans, and cotton) once every four years. However, we reviewed several of these surveys and found that they contain only general best management practices instead of questions about specific LSU AgCenter research and recommendations. Therefore, the surveys are not an effective way of evaluating whether clients adopted LSU AgCenter recommendations.

On the contrary, in our survey of LSU AgCenter stakeholders, we asked whether respondents had implemented the specific results of six specific LSU AgCenter research projects. We found that anywhere from 73% to 100% of survey respondents said that they had implemented the research recommendations. Asking questions in this manner on its surveys would tell the LSU AgCenter whether its stakeholders are using the results of its research.

Family and Consumer Sciences (FCS)

Some FCS agents use post-test surveys to assess whether program participants increased their knowledge and whether they intend to implement knowledge gained from educational programs. However, post-test surveys only show participants' intent to implement behaviors or attitudes. A more effective evaluation would assess whether the participants actually implemented the behavior.

We analyzed complaints filed against our sample of childcare providers to determine whether any of those providers had attended an LSU AgCenter training course on appropriate discipline and guidance before related complaints were filed. We found that some providers who attended the classes had discipline-related complaints filed against them after taking the classes. For example, a director of a childcare center attended a discipline and guidance class in August 2002. In January 2003, the director had a valid complaint filed against him for spanking a child. The director also admitted that he spanked children on other occasions. Reviewing these complaints could help the LSU AgCenter evaluate whether providers are implementing what they learned in training classes.

Conducting follow-up surveys could also help FCS staff determine whether their stakeholders have implemented what they learned through LSU AgCenter extension services. For example, our childcare provider training survey showed that over 98% of respondents either agreed or strongly agreed that they used what they learned in training classes at their childcare facilities. Respondents said that they now use proper hand-washing procedures, guidance techniques, and developmental information at their facilities.

4-H Youth Development

The 4-H program uses pre- and post-tests to assess whether program participants show increased knowledge after participating in 4-H activities. For example, according to LSU AgCenter documentation, 4-H members who attended the Marsh Maneuvers camp in the summer of 2003 showed a 7% to 18% improvement from a pre-test to a post-test.

Overall, the methods the LSU AgCenter uses to evaluate whether stakeholders have implemented what they learned from the AgCenter could be improved. Improving and expanding its evaluation methods could help the LSU AgCenter document whether its programs have an effect on stakeholders' attitudes and behaviors. Some examples of additional evaluation methods the LSU AgCenter could use are as follows:

Pre- and Post-Tests and/or Post- then Pre-Test Surveys. Since the purpose of LSU AgCenter educational programs is to increase knowledge, LSU AgCenter staff could test whether participants experienced knowledge gain after LSU AgCenter programs. Pre-tests establish what participants knew before training programs, and post-tests assess what they learned in the programs. This process is similar to what the 4-H program staff does for its Marsh Maneuvers camp. A similar method is the post- then pre-test. This type of survey asks participants

what they learned in the educational programs and whether they knew it before they participated in the programs.

Follow-Up Surveys. The LSU AgCenter's extension agents could conduct follow-up surveys by phone or mail to determine whether stakeholders are using what they learned and the ways in which they are implementing the learned behaviors. For example, in Missouri, divorcing parents with children must attend a Focus on Kids program. This program is similar to the Children in the Middle program that the LSU AgCenter provides for divorcing couples with children. After attending the workshop, the participants in Missouri filled out a program evaluation. Staff in Missouri then conducted a follow-up survey one year after the program.

It should be noted that although the return rate was low (12%) for the follow-up survey on Focus on Kids, University of Missouri Outreach and Extension was able to determine that the program did result in positive impacts on divorcing parents who completed the survey. For example, more than two-thirds of the survey respondents said that they were aware of their children's feelings and reactions to family changes and had used at least one idea to reduce stress and set up meaningful time for their children with each parent.

Direct Observation. Another evaluation method the LSU AgCenter could use is to have agents, stakeholders, trained volunteers, and/or key informants directly observe stakeholders who have attended training sessions, field days, and other activities to witness whether the stakeholders are implementing desired behaviors. For example, researchers could provide extension agents with checklists to observe whether stakeholders are implementing the results of research. FCS extension agents could encourage childcare directors to note when their staff are using behaviors learned in childcare provider training classes.

3. Social and/or Economic Impact

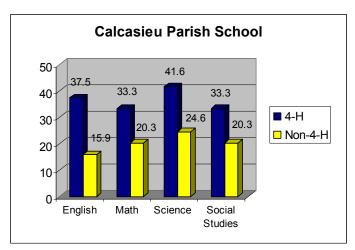
Individual agents or researchers of the LSU AgCenter may, at times, evaluate social and economic impacts as part of specific workshops or projects. However, the LSU AgCenter does not have a formal or consistent method of evaluating the social or economic impact of all of its activities. A consistent and concerted effort to do statewide evaluations would help the LSU AgCenter demonstrate whether its extension and research activities play a large role in the social and economic development of Louisiana citizens.

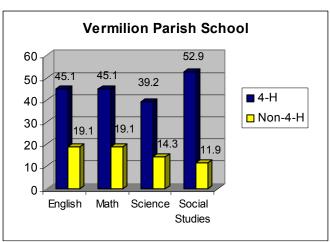
We found that some staff have conducted surveys of program participants to determine the economic impact on clients. For example, one LSU AgCenter faculty member asked workshop participants how much the workshop meant to them economically and how many employees they would hire as a result of what they had learned. Based on the survey responses, the researcher estimated that his workshop had a total economic value of \$500,000. Other programs, such as 4-H and Family Development, have not had any formal evaluations conducted to measure their social or economic impacts. Instead, agents for these programs often rely on

self-reported anecdotal data and literature from similar programs in other states to show the impact of their programs.

To illustrate an evaluation method that the LSU AgCenter could use, we compared Louisiana Educational Achievement Program (LEAP) score results and grade point averages (GPAs) for 4-H members and non-4-H members at two schools. We chose LEAP scores as our measure because the 4-H curriculum is aligned with LEAP content standards. Our comparison showed that 4-H students scored higher on the LEAP test and had higher GPAs than non-4-H students. Exhibit 10 below and Exhibit 11 on page 20 illustrate these results. If the LSU AgCenter could access student data, it could do a similar evaluation on a statewide basis.

Exhibit 10 Percentage of Sample 4-H and Non-4-H Students With LEAP Scores at Advanced or Mastery Level





Source: Prepared by legislative auditor's staff using LEAP scores obtained from sample school in Calcasieu Parish and sample school in Vermilion Parish.

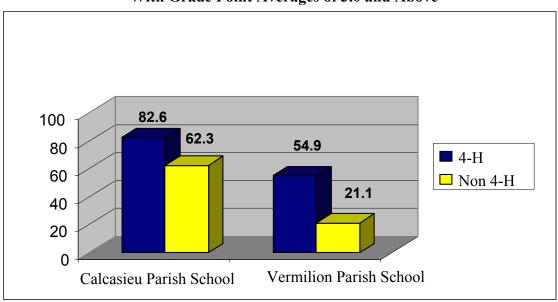


Exhibit 11
Percentage of Sample 4-H and Non-4-H Students
With Grade Point Averages of 3.0 and Above

Source: Prepared by legislative auditor's staff using data obtained from sample school in Calcasieu Parish and sample school in Vermilion Parish.

This small-scale evaluation does not suggest causality between 4-H membership and better school performance. However, it does show that there may be an association between these two factors, a notion that the LSU AgCenter could further evaluate. According to 4-H staff, they would like to do this kind of evaluation but have had difficulty obtaining school performance data from the Department of Education.

We also attempted to evaluate the LSU AgCenter's Children in the Middle Program. Several Louisiana District Courts have been recommending or mandating the Children in the Middle parenting program for divorcing parents since 2001. We attempted to survey all of the judges who participate in this program. We also attempted to obtain litigation data on participants and non-participants. Analyzing litigation data for parents who attended Children in the Middle and comparing their data to the data of those who did not attend would provide a useful evaluation tool with a measurable outcome. However, because of time constraints and difficulty reaching the judges, we were only able to survey three judges. The results of our telephone survey of these three judges are as follows:

- All three judges recommended the program. One judge reported difficulty in getting his colleagues to do the same.
- Two of the judges said that they have noticed that program participants have not had to return to court. One said that some attorneys have said that the program is helpful, as well.

 According to the judges, program impacts include reductions in tension between parents, reductions in re-litigation, promotion of awareness of the greater responsibilities involved with divorce, and personal impacts.

In addition, our survey results indicate that LSU AgCenter research and extension programs have had a positive impact on stakeholders who have implemented recommendations resulting from the research. For example, some survey respondents said that they have increased their productivity and profitability in the following ways:

- Higher crop yields
- Reduced costs from using less pesticides and herbicides
- Better quality products

We reviewed best practices and spoke with evaluation experts to identify additional methods the LSU AgCenter could use to enhance its evaluation efforts. From our reviews and interviews, we identified several recommended evaluation methods. These recommended methods are as follows:

- Use of Existing Records and Data. Using existing data often provides the most efficient method of evaluation when time and resources are a factor. For example, Nevada extension agents taught a parenting class on how to prevent Sudden Infant Death Syndrome (SIDS). The agents used existing county data on SIDS to show that the number of SIDS cases was reduced after nearly 1,000 parents attended the class. Existing data, such as tests scores, divorce proceedings, and child abuse and neglect rates could all be used to show program impacts.
- ☑ Use of Comparison Groups. The Center for Divorce Education provided us with a copy of a study on the use of comparison groups in evaluating the Children in the Middle Program for divorcing parents. According to the study, two groups of parents were tracked for two years following their divorces. The two groups did not differ in any assessed demographic or family characteristics. At the time of the follow-up assessment, the parents who had attended the class had re-litigated less than half as often than those who had not attended the class. Comparison groups could also be used for agricultural research and extension programs. For instance, extension agents could compare groups of participants who used LSU AgCenter research recommendations to those who did not.
- ✓ Long-Term or Longitudinal Studies. Long-term outcome studies and longitudinal studies evaluate impacts or benefits over time. For example, a Texas A&M study found that 4-H members tended to be more involved in community activities than non 4-H members. In another example, the Chicago Longitudinal Study found many positive long-term educational outcomes such as lower dropout rates and lower juvenile crime rates for those who attended early childhood education programs as opposed to those who did not. Although these types of

evaluations require more time and resources than other evaluation methods, longitudinal data can show the wider impacts of programs over time.

Cost-Benefit Analyses. Cost-benefit analyses compare program inputs and resources to outcomes to demonstrate accountability. Cost-benefit studies can help show whether the economic and social benefits of a program outweigh its cost. These types of analyses would be especially useful for agricultural research and extension programs to show their economic impact on stakeholders. For example, farmers who use a new variety of a specific crop may increase their yield and growth rates, which would result in an economic impact to the state. We attempted to conduct cost-benefit analyses of some of the LSU AgCenter's programs. However, we were unable to do so because the LSU AgCenter does not track expenditures by individual program.

Recommendation 3: The LSU AgCenter should strengthen its evaluation efforts by using or expanding the use of the following evaluation methods:

- Satisfaction surveys
- Pre- and post-tests and/or post- then pre-test surveys
- Follow-up surveys
- Direct observation
- Existing records and data
- Comparison groups
- Long-term or longitudinal studies
- Cost-benefit analyses (would require collection of expenditure data on programs)

Summary of Management's Response: The LSU AgCenter agrees with this recommendation and will continue to expand and add appropriate evaluation methods for all major programming initiatives.

Recommendation 4: The LSU AgCenter should collaborate with other colleges and schools within the LSU System to allow graduate students to conduct evaluations of its research and extension activities. This approach would give the students the opportunity to practice program evaluation concepts for school projects or theses and provide the LSU AgCenter with evaluation resources at little or no cost.

Summary of Management's Response: The LSU AgCenter agrees with this recommendation and plans to continue to seek opportunities for expanding its efforts in using degree-oriented student research to efficiently evaluate programs.

Recommendation 5: The LSU AgCenter should determine whether legislative action is necessary to obtain access to Department of Education student records. (See Matter for Legislative Consideration 1 on page 24.) If legislation is needed, the LSU AgCenter should

work with legislative staff to introduce appropriate legislation. The LSU AgCenter should use the student data in evaluations of the 4-H program. The LSU AgCenter should also determine whether other databases exist that could enhance its evaluation activities.

Summary of Management's Response: The LSU AgCenter agrees with this recommendation and will evaluate what actions may be necessary to gain access to the databases.

Matter for Legislative Consideration 1: The legislature may wish to consider passing legislation that gives the LSU AgCenter authority to use data from other state agencies including the Departments of Social Services and Education for planning and evaluation purposes. The authority should include safeguards to protect confidential data.

Improved Reporting of Outcomes and Impacts Would Better Demonstrate LSU AgCenter's Accomplishments

The LSU AgCenter encourages researchers and extension agents to report their outcomes and impacts. The LSU AgCenter uses these outcome and impact statements to report accomplishments in its annual report to USDA, to evaluate the performance of its staff, and to include in LSU AgCenter publications. However, we found that reported outcomes and impacts do not contain all critical elements. As a result, they do not present a complete portrayal of the results of LSU AgCenter activities.

Research staff enter the impact of their research projects in the USDA's Current Research and Information System database. Extension agents enter program objectives, inputs (e.g., number of man days spent on each objective), outputs (e.g., number of educational contacts), and outcomes in the Performance and Reporting System (PARS). Both research and extension staff are encouraged to enter impacts in a database on the LSU AgCenter Web site for the public to view. The LSU AgCenter has conducted training for its staff on how to write effective outcome statements. However, in our review of various impact and outcome statements, we identified several deficiencies in the way they are reported.

We reviewed outcome statements for the 4-H and FCS programs in our sample. We also reviewed social and economic impact statements. We found that some of the statements were poorly written and did not contain all elements necessary to be considered effective outcome or impact statements. Following are two examples of weak outcome statements and an example of a weak economic impact statement.

- ✓ **4-H outcome statement**: Organized and conducted educational programs for 35 beef exhibitors and their parents.
- FCS outcome statement: Childcare providers expressed that they would begin to be more nurturing instead of disciplining harshly.

Agriculture impact statement: The market association has a better understanding of what it takes to have a successful farmers' market and they were successful in securing additional funds.

According to LSU AgCenter staff, the USDA, and other states, acceptable outcome and impact statements should include the following elements:

- Total numbers and percentages of participants who were educated, as well as the number and percentage of those who learned, adopted, or practiced new behaviors resulting from the educational program.
- Clear, concise, and specific results (e.g., "Participants learned to use appropriate discipline techniques, such as timeout," instead of "Participants learned new parenting skills.")
- Measurable results, such as
 - Money saved
 - Increased profits
 - Improved eating habits
 - Increased test scores
 - Decreased incidences of abuse
 - Increased production

The 4-H outcome statement is actually an output measure instead of an outcome measure. It simply reports the number of educational programs conducted and does not report the results or impact those programs had on the stakeholders that participated in them. The FCS outcome statement reports what the participants *intend* to do as a result of the training they received. It does not report whether the participants actually made any measurable changes in their behavior as a result of the training. The agriculture economic impact statement does not include specific or quantifiable results, such as the amount of additional funds secured.

Even though the LSU AgCenter's reported outcomes and impacts are often not specific or measurable, the LSU AgCenter does have many social and economic impacts on the state. For instance, the picture at the right shows one of the goats cloned by the LSU AgCenter. LSU AgCenter researchers manipulated the goat's genes so it would produce a protein in its milk that can be used in heart medications. A meaningful outcome or impact statement would show the dollar impact of the production and/or sales of this protein/medication on the state's economy. Other examples of LSU AgCenter activities for which outcome or impact statements could be developed include the following:



Cloned Goat

- ❖ The LSU AgCenter has obtained over 100 patents for its inventions and methods.
- ❖ LSU AgCenter researchers have developed technologies that resulted in the development of seven businesses.
- ❖ LSU AgCenter researchers have discovered various plant varieties, such as the Clearfields variety of rice, which are more resistant to diseases and weeds than older varieties.
- LSU AgCenter researchers have developed a process to produce insulin in poultry eggs.
- ❖ LSU AgCenter researchers have developed cheaper alternatives to traditional methods, such as a robotic boat to scare birds from fish ponds instead of using more expensive bird abatement methods.
- LSU AgCenter employees have developed preventative technologies, such as a pop-up termite indicator, that save money.

As these examples illustrate, the LSU AgCenter does have an economic impact on the state. However, the LSU AgCenter has not demonstrated its impact fully through evaluation and reporting of outcomes and impacts. Reporting quantifiable data that illustrates the full impact of its activities would help the LSU AgCenter better demonstrate its role in economic development in the state. Similarly, clear and measurable outcome and impact statements could show the LSU AgCenter's impact on social issues in the state.

Recommendation 6: The LSU AgCenter should continue to train its employees on how to develop and write outcome and impact statements. Future training should include an increased focus on how to develop proper outcome and impact statements that contain all necessary elements and describe achieved results in a specific manner.

Summary of Management's Response: The LSU AgCenter agrees with this recommendation and will continue to develop and implement a faculty-targeted training action plan that will focus on the proper elements of outcome and impact statements.

Centralized Database Would Improve Communication and Evaluation Efforts

The LSU AgCenter does not keep stakeholder information in a central location. In addition, much of the stakeholder information the LSU AgCenter has is not current or accurate. Having a centralized and accurate database of stakeholders would help the LSU AgCenter improve its process of communicating with them. It would also help the LSU AgCenter distribute research and extension information and evaluate its programs statewide.

While gathering lists of stakeholders, we noted that there was no centralization of this information for each commodity group or program. Instead, we found that many extension agents maintained their own lists at the parish level. In addition, some of the lists were not updated. For example, several addresses and phone numbers were not current, and some names

included on the lists were no longer farmers or advisory committee members. In addition, we found that some people who were listed as advisory committee members were not aware that they were members of the committees.

In our surveys of LSU AgCenter stakeholders, we asked whether the results of the LSU AgCenter's general research were communicated to them effectively. Fourteen of the 46 clients who responded to this question (30.4%) either disagreed or strongly disagreed that the research results were not communicated effectively or said that they were not familiar with the research. Although this number is not a majority, it does indicate that the LSU AgCenter could improve its communication. Other comments from respondents indicate the same. For instance, several respondents said that newsletters or mail-outs would be one of the best ways to distribute information. One producer commented that the LSU AgCenter conducts good research but does not convey the results effectively. He said that he has seen a continual decline in the LSU AgCenter's ability to distribute information to producers. An accurate and centralized database of stakeholder information would help the LSU AgCenter disseminate research results more effectively. Such a database would also help the LSU AgCenter conduct statewide evaluations of stakeholders.

Recommendation 7: The LSU AgCenter should develop a centralized database of stakeholder information. The LSU AgCenter should also develop a process for keeping the data in this database current and accurate. A database of this type would help the LSU AgCenter distribute information and communicate with stakeholders more effectively and efficiently.

Summary of Management's Response: The LSU AgCenter agrees with this recommendation and will explore opportunities for developing a web-based stakeholder database.

Appendix A Audit Scope and Methodology

Appendix A: Audit Scope and Methodology

This performance audit was conducted under the provisions of Title 24 of the Louisiana Revised Statutes of 1950, as amended. We followed applicable generally accepted government auditing standards as promulgated by the Comptroller General of the United States in conducting the audit. Preliminary work on the audit began in May 2003.

Scope

This audit focused on research and extension activities of the LSU AgCenter. The audit covers fiscal years 2002 and 2003. In some cases we expanded our scope to include fiscal years 2000 and 2001 to ensure that enough time had passed for research results to be disseminated. Our audit objective was to answer the following question:

• Are LSU AgCenter activities relevant and effective?

Methodology

To gain an overview of LSU AgCenter activities, we completed the following procedures:

- Researched federal and state laws, rules and regulations
- Reviewed United States Department of Agriculture and LSU AgCenter websites
- Interviewed LSU AgCenter staff
- Toured research stations and extension offices
- Attended research station field days
- Reviewed plans of work, outcome and impact statements, annual reports, and other documents that summarize LSU AgCenter activities and results

To obtain information on whether LSU AgCenter activities are relevant to stakeholder needs, we performed the following procedures:

- Interviewed staff on how they determine and ensure that research projects and extension programs are relevant to stakeholder needs
- Reviewed needs assessment documents, such as parish reviews and Community Focus Forum strategic plans
- Used man days to generate a sample of extension programs. We used man days because the LSU AgCenter does not track expenditures by program. Man days allowed us to determine where agents spend the majority of their time. Our sample included family

development programs and 4-H programs. We then chose four sample regions (Central, Northwest, Northeast, and Crescent) based on the quality and prevalence of programs in those areas.

- Conducted a mail survey of a random sample of extension stakeholders in four sample regions (Central, Northwest, Northeast, and Crescent) who attended childcare provider training in fiscal year 2003 to obtain their feedback on whether the training was relevant to their needs. We surveyed 20% of the total providers in each region, a total of 162 providers. We received responses from 62 (38.3%) of the stakeholders. Survey results are summarized in Appendix E.
- Conducted a telephone survey of 47 stakeholders in four sample regions (Central, Northwest, Northeast, and Crescent) to obtain their feedback on whether the LSU AgCenter was offering relevant extension programs in the family development program area. Survey results are summarized in Appendix F.
- Selected the six research projects that received the most state funds from all research projects completed in calendar years 2000 and 2001 and developed survey questions for each project. Sent a mail survey to a total of 264 stakeholders to determine whether results from these six specific research projects were relevant to their needs. For four of the projects, we also asked whether general research conducted by the AgCenter was relevant to their needs. We had an overall response rate of 26.8%. The response rate for each research project is shown in the chart below. Survey results for the questions on the six specific research projects are summarized in Appendix C. Survey results for the questions on general research are summarized in Appendix D.

Commodity Group	Surveys Sent	Responses Received	Response Rate
Beef	59	12	20.3%
Dairy	69	10	14.5%
Mayhaw	37	18	48.7%
Oyster	1	1	100.0%
Rice	58	18	31.0%
Soybean	40	8	20.0%
	264	67	25.4%

To determine whether LSU AgCenter programs are effective, we performed the following procedures:

- Reviewed outcome and impact statements for certain LSU AgCenter activities
- Obtained criteria for quality outcomes and impacts from USDA and other states
- Compared LSU AgCenter outcomes to criteria and best practices
- Interviewed staff and reviewed documentation on how the LSU AgCenter evaluates its research and extension activities
- Obtained criteria related to evaluation from experts, other states, and associations

- Compared LSU AgCenter evaluation methods to these criteria and developed recommendations for how to improve their evaluations
- Conducted surveys mentioned previously to assess client and stakeholder satisfaction with and implementation of AgCenter research projects and extension programs in our sample
- Performed small scale evaluation of the impact of 4-H and Childcare Provider Training as follows:
 - For 4-H, we selected two parishes. We selected Vermilion because of the quality of the 4-H program and Calcasieu because none of our other samples included this region. In those two parishes, we selected two elementary schools that had the highest number of 4-H participants. We requested LEAP scores and Grade Point Averages (GPAs) for all 4th graders who took the LEAP test in spring 2003. We compared the LEAP scores and GPAs of 4-H members to non-4-H members to determine what kind of impact 4-H may have on school performance.
 - For childcare provider training, we requested a list of all providers in the four sample regions who took the class titled "Guidance and Discipline," which was taught by the LSU AgCenter. We then used the DSS complaint database, which documents complaints against childcare facilities, to determine whether providers who took that class had any discipline related complaints against them. We completed this test to determine whether the content of LSU AgCenter training was being implemented at childcare facilities.
 - For the Children in the Middle Program, we attempted to talk to all judges in our sample regions who mandate or recommend this program. However, we were only able to talk to three judges. We were also unable to obtain any litigation data to determine whether the program resulted in fewer court appearances for divorcing parent. However, we did compile the comments from our survey of judges and reviewed some evaluations from other states that were able to obtain and evaluate litigation data in an effort to show the LSU AgCenter some ways to improve its evaluation of this program.

Appendix B

Summary of Matter for Legislative Consideration and Recommendations

Appendix B: Summary of Matter for Legislative Consideration and Recommendations

Matter for Legislative Consideration 1: The legislature may wish to consider passing legislation that gives the LSU AgCenter authority to use data from other state agencies including the Departments of Social Services and Education for planning and evaluation purposes. The authority should include safeguards to protect confidential data.

Recommendation 1: The LSU AgCenter should strengthen its oversight of parish advisory committees used to assess stakeholder needs. Specifically, the AgCenter should develop policies and procedures that accomplish the following:

- Ensure that all extension interests are represented by parish advisory committees
- Help facilitate involvement of committee members

Recommendation 2: The LSU AgCenter should determine whether legislative action is required to obtain access to the Department of Social Service's complaint database. If legislative action is required, the AgCenter should work with legislative staff to develop appropriate legislation. (See Matter for Legislative Consideration above). Once access is gained, the AgCenter should use information from the database to help plan the content of its childcare provider training programs.

Recommendation 3: The LSU AgCenter should strengthen its evaluation efforts by using or expanding the use of the following evaluation methods:

- Satisfaction surveys
- Pre- and post-tests and/or post- then pre-test surveys
- Follow-up surveys
- Direct observation
- Existing records and data
- Comparison groups
- Long-term or longitudinal studies
- Cost-benefit analyses (would require collection of expenditure data on programs)

Recommendation 4: The LSU AgCenter should collaborate with other colleges and schools within the LSU System to allow graduate students to conduct evaluations of its research and extension activities. This approach would give the students the opportunity to practice program evaluation concepts for school projects or theses and provide the LSU AgCenter with evaluation resources at little or no cost.

Recommendation 5: The LSU AgCenter should determine whether legislative action is necessary to obtain access to Department of Education student records. (See Matter for Legislative Consideration 1 on page B.1) If legislation is needed, the LSU AgCenter should work with legislative staff to introduce appropriate legislation. The LSU AgCenter should use the student data in evaluations of the 4-H program. The LSU AgCenter should also determine whether other databases exist that could enhance its evaluation activities.

Recommendation 6: The LSU AgCenter should continue to train its employees on how to develop and write outcome and impact statements. Future training should include an increased focus on how to develop proper outcome and impact statements that contain all necessary elements and describe achieved results in a specific manner.

Recommendation 7: The LSU AgCenter should develop a centralized database of stakeholder information. The LSU AgCenter should also develop a process for keeping the data in this database current and accurate. A database of this type would help the LSU AgCenter distribute information and communicate with stakeholders more effectively and efficiently.

Appendix C

Summary of Results of Surveys on Specific Research Projects

Appendix C: Summary of Results of Surveys on Specific Research Projects

Dairy Research Project

ilk Urea	Yes	7	70.0%
ng protein,	No	3	30.0%
?	Total	10	100.0%
	Yes	7	100.0%
it it from the	No	0	0.0%
	Total	7	100.0%
	Yes	5	100.0%
LSU	No	0	0.0%
	Total	5	100.0%
LSU	Yes	4	80.0%
s resulting	No	1	20.0%
	Total	5	100.0%
said that they w d ration, which	ere able to laultimately sa	ower ived 1	them
Extens	sion Agents	2	15.4%
	Field Days	3	23.1%
	1 icia Days	5	23.170
T	LSU s resulting of the farmers we said that they we deration, which to timplement the	Total Yes No Total Of the farmers who implements aid that they were able to led a ration, which ultimately satisfaction implement the recommendation of the re	Total 10 Yes 7 No 0 Total 7 Yes 5 No 0 Total 5 LSU Yes 5 No 0 Total 5 LSU Yes 4 No 1 Total 5 Of the farmers who implemented said that they were able to lower dration, which ultimately saved to timplement the recommendation Extension Agents 2

Soybean Research Project

While managing weeds on your farm, do you us	e the LSII AgCenter	Yes	8	100.0%
as a source of information to help you decide wh	nat herbicides to use,	No	0	0.0%
what quantity to use, and when to apply the cher	mıcal'?	Total	8	100.0%
		Yes	8	100.0%
If you are familiar with research on weed control LSU AgCenter, is it relevant to you?	ol conducted by the	No	0	0.0%
		Total	8	100.0%
If you are familiar with this research conducted	by the LSU AgCenter.	Yes	6	85.7%
have you implemented any recommendations re	-	No	1	14.3%
research?		Total	7	100.0%
Summary of Relevant Comments LSU AgCenter helps them with f the type and rate of herbicides to spray lower amounts of chemical experienced higher yields of soyl	ield management decisions, which saves them is. Some soybean grower	ons such as comoney becau	detei ise t	rmining hey can
	Exten	sion Agents	2	16.7%
		Field Days	2	16.7%
What is the best way for the LSU AgCenter to communicate research results to you?	Suggested Chemical V	Weed Guide	1	8.3%
	Newsletters	or Mailings	5	41.7%
		E-mail	2	16.7%
Source: Prepared by legislative auditor's staff using surv				

Beef Research Project

	Ves	7	58.3%
Are you familiar with alternative crossbreeding methods available to commercial beef cattle producers with small herds (less than 100			41.7%
cows)?	rest with small herds (less than 100 No 5 41) Total 12 100. Yes 5 71 No 2 28 Total 7 100. Yes 4 80 No 1 20 Total 5 100. Tearch conducted by the LSU Rearch conducted by the LSU Rear		
66 113).	Total	12	100.0%
	Yes	5	71.4%
If you are familiar with this research, did you hear about it from the LSU AgCenter?	No	2	28.6%
	Total	7	100.0%
	Yes	4	80.0%
If you are familiar with this research conducted by the LSU AgCenter, is it relevant to you?	No	1	20.0%
rigeomer, is it relevant to you.	Total	5	100.0%
If you are familiar with this research conducted by the LSU	Yes	3	75.0%
AgCenter, have you implemented any recommendations resulting	No	1	25.0%
from the research?	Total	4	100.0%
recommendations of the LSU AgCenter said that they sa	aw increased ent recommen	weig	ght in
Extens	sion Agents	9	36.0%
	Researchers	1	4.0%
What is the best way for the LSU AgCenter to communicate research results to you? Association	on Meetings	1	4.0%
Tomas and research results to you.	Field Days	6	24.0%
Newsletter	or Mailings	8	32.0%
Source: Prepared by legislative auditor's staff using survey responses.			

Mayhaw Research Project

	Yes	16	88.9%
Are you familiar with control techniques for quince rust infection on mayhaw?	No	2	11.1%
may na vi .	Total	18	100.0%
	Yes	15	93.7%
If you are familiar with this research, did you hear about it from the LSU AgCenter?	No	1	6.3%
Loo rigeomer:	Total	16	100.0%
	Yes	14	77.8%
Are you familiar with the higher quince rust tolerance level that some varieties of mayhaw have?	No	4	22.2%
varieties of maynaw nave:	Total	1 18 15 1 16 14 4 1 18 12 2 1 14 8 2 1 10 8 3 1 11 id that they mendations d more attraon the LSU ontrol the quanter's tire orchard	100.0%
	Yes	12	85.7%
If you are familiar with this research, did you hear about it from the LSU AgCenter?	No	2	14.3%
250 rigociner:	Total	14	100.0%
	Yes	8	80.0%
If you are familiar with this research conducted by the LSU AgCenter, is it relevant to you?	No	2	20.0%
Ageenter, is it relevant to you:	Total	10	100.0%
	* 7		
If you are familiar with this research conducted by the I SII	Yes	8	72.7%
If you are familiar with this research conducted by the LSU AgCenter, have you implemented any recommendations resulting	Y es No		72.7% 27.3%
		3	
AgCenter, have you implemented any recommendations resulting	No Total wers said that recommend erienced more based on the ble to control e AgCenter's	11 t they ations the attribute the quantity the quantity of th	27.3% 100.0% V reduced s made factive
AgCenter, have you implemented any recommendations resulting from the research? Summary of Relevant Comments: Several mayhaw groquince rust and had a more marketable yield because oby the LSU AgCenter. Growers also said that they expand heavier fruit. One grower who sprayed a chemical AgCenter's recommendations said that he was still unal rust. Another grower said that he did not implement the recommendations because he would have had to replace	No Total wers said that recommend erienced more based on the ole to control e AgCenter's e his entire or	11 t they ations the attribute the quantity the quantity of th	27.3% 100.0% V reduced s made factive
AgCenter, have you implemented any recommendations resulting from the research? Summary of Relevant Comments: Several mayhaw groquince rust and had a more marketable yield because o by the LSU AgCenter. Growers also said that they expand heavier fruit. One grower who sprayed a chemical AgCenter's recommendations said that he was still unal rust. Another grower said that he did not implement the recommendations because he would have had to replace different variety of mayhaw. Extension Agent	No Total wers said that recommend erienced more based on the ole to control e AgCenter's e his entire or	11 t they ations re attr LSU the querchare	27.3% 100.0% I reduced s made active quince d with a
AgCenter, have you implemented any recommendations resulting from the research? Summary of Relevant Comments: Several mayhaw groquince rust and had a more marketable yield because oby the LSU AgCenter. Growers also said that they expand heavier fruit. One grower who sprayed a chemical AgCenter's recommendations said that he was still unal rust. Another grower said that he did not implement the recommendations because he would have had to replace different variety of mayhaw. Extension Agent Associati What is the best way for the LSU AgCenter to	No Total wers said that recommend erienced more based on the ole to control e AgCenter's e his entire of the ole ole of the ole ole ole ole ole ole ole ole ole ol	3 11 t they ations to attribute attribute quantity the quantity at the quantit	27.3% 100.0% y reduced s made active duince d with a 16.7% 13.3% 10.0%
AgCenter, have you implemented any recommendations resulting from the research? Summary of Relevant Comments: Several mayhaw groquince rust and had a more marketable yield because o by the LSU AgCenter. Growers also said that they expand heavier fruit. One grower who sprayed a chemical AgCenter's recommendations said that he was still unal rust. Another grower said that he did not implement the recommendations because he would have had to replace different variety of mayhaw. Extension Agent Association	No Total wers said that recommend erienced more based on the ble to control e AgCenter's e his entire of the series of the Neetings web Site Field Days	11 t they ations the attribute of the quantity	27.3% 100.0% y reduced s made active quince d with a 16.7% 13.3% 10.0% 13.3%
AgCenter, have you implemented any recommendations resulting from the research? Summary of Relevant Comments: Several mayhaw groquince rust and had a more marketable yield because o by the LSU AgCenter. Growers also said that they expand heavier fruit. One grower who sprayed a chemical AgCenter's recommendations said that he was still unal rust. Another grower said that he did not implement the recommendations because he would have had to replace different variety of mayhaw. Extension Agent Associati What is the best way for the LSU AgCenter to communicate research results to you?	No Total wers said that recommend erienced more based on the ole to control e AgCenter's e his entire of the ole ole of the ole ole ole ole ole ole ole ole ole ol	3 11 t they ations to attribute attribute quantity the quantity at the quantit	27.3% 100.0% y reduced s made active duince d with a 16.7% 13.3% 10.0%

Rice Research Project

Are you familiar with the research project conducted	hy the LSII	Yes	14	77.8%
AgCenter titled "Development of Procedures for the		No	4	22.2%
Disease Resistance in Rice"?		Total 18 100.0° Yes 16 88.9 No 2 11.1 Total 18 100.0° Yes 15 83.3 No 3 16.7 Total 18 100.0° Total 18 100.0° ents said that they have seen a cide and usage and costs, and E-mail 13 29.6 Mail 3 6.8 Journals 4 9.1 Field Days 4 9.1 ster Publications / 7 15.0	100.0%	
		Yes	16	88.9%
Is this project relevant to you as a rice researcher or extension agent?		No	2	11.1%
		Total	18	100.0%
		Yes	15	83.3%
Have you used the results of this research project?		No	3	16.7%
		Total	18	100.0%
Summary of Relevant Comments: Sur increase in grain and milling yields, re growth of more disease resistant varie	educed fungicide a			
		E-mail	13	29.6%
		Mail	3	6.8%
		Journals	4	9.1%
		Field Days	4	9.1%
What is the best way for the LSU AgCenter to communicate research results to you?	AgCenter Pu Reports / Anni		7	15.9%
	Personal C Researchers / Presentation	_	8	18.2%
		Web Site	3	6.8%
	Newsp	aper/Media	2	4.6%
Source: Prepared by legislative auditor's staff using survey res	sponses.			

Oyster Research Project

For this research project, the only direct client was an oyster processing business. The oyster processor approached the LSU AgCenter with a way to potentially pasteurize oysters to make them safer for raw consumption. The LSU AgCenter helped develop, document, and test the process. As a result of the research, the processor said that he now has the ability to harvest oysters year round and market raw Gulf Coast oysters in other states. He also said that the process has increased the shelf life of oysters and almost doubled their selling price.

Source: Prepared by legislative auditor's staff using survey responses.

Appendix D

Summary of Results of Survey on General Research by Commodity Group

Appendix D: Summary of Results of Survey on General Research by Commodity Group

Some of the stakeholders who responded to the survey questions were not familiar enough with general research the LSU AgCenter conducts to answer the questions. The responses represent only those stakeholders who stated that they are familiar with general research conducted by the LSU AgCenter.

	D	airy	Soy	bean	F	Beef	Ma	yhaw	To	otals
The LSU AgCenter	conduct	s research	that is r	elevant to	my need	ds.				
Strongly Agree	4	44.4%	5	62.5%	5	55.6%	6	42.9%	20	50.0%
Agree	5	55.6%	3	37.5%	3	33.3%	7	50.0%	18	45.0%
Total	9	100.0%	8	100.0%	8	88.9%	13	92.9%	38	95.0%
Disagree	0	0.0%	0	0.0%	1	11.1%	0	0.0%	1	2.5%
Strongly Disagree	0	0.0%	0	0.0%	0	0.0%	1	7.1%	1	2.5%
Total	0	0.0%	0	0.0%	1	11.1%	1	7.1%	2	5.0%
Grand Total	9	100.0%	8	100.0%	9	100.0%	14	100.0%	40	100.0%
LSU AgCenter cond	lucts res	earch that	has imp	roved my	product	ivity.				
Strongly Agree	3	33.3%	4	50.0%	4	66.7%	4	36.4%	15	44.1%
Agree	6	66.7%	4	50.0%	2	33.3%	5	45.4%	17	50.0%
Total	9	100.0%	8	100.0%	6	100.0%	9	81.8%	32	94.1%
Disagree	0	0.0%	0	0.0%	0	0.0%	1	9.1%	1	2.9%
Strongly Disagree	0	0.0%	0	0.0%	0	0.0%	1	9.1%	1	2.9%
Total	0	0.0%	0	0.0%	0	0.0%	2	18.2%	2	5.9%
Grand Total	9	100.0%	8	100.0%	6	100.0%	11	100.0%	34	100.0%
LSU AgCenter cond	lucts res	earch that	has imp	roved my	profitab	oility.				
Strongly Agree	2	22.2%	5	62.5%	2	28.6%	3	33.4%	12	36.3%
Agree	5	55.6%	2	25.0%	4	57.1%	4	44.4%	15	45.5%
Total	7	77.8%	7	87.5%	6	85.7%	7	77.8%	27	81.8%
Disagree	2	22.2%	1	12.5%	0	0.0%	1	11.1%	4	12.1%
Strongly Disagree	0	0.0%	0	0.0%	1	14.3%	1	11.1%	2	6.1%
Total	2	22.2%	1	12.5%	1	14.3%	2	22.2%	6	18.2%
Grand Total	9	100.0%	8	100.0%	7	100.0%	9	100.0%	33	100.0%

	Da	airy	Soy	bean		Beef	Ma	yhaw	To	otals	
The results of LSU	AgCente	r research	are com	municate	d to me	effectively.				'	
Strongly Agree	4	44.4%	3	37.5%	2	25.0%	4	33.3%	13	35.1%	
Agree	5	55.6%	4	50.0%	4	50.0%	6	50.0%	19	51.4%	
Total	9	100.0%	7	87.5%	6	75.0%	10	83.3%	32	86.5%	
Disagree	0	0.0%	1	12.5%	2	25.0%	1	8.3%	4	10.8%	
Strongly Disagree	0	0.0%	0	0.0%	0	0.0%	1	8.3%	1	2.7%	
Total	0	0.0%	1	12.5%	2	25.0%	2	16.7%	5	13.5%	
Grand Total	9	100.0%	8	100.0%	8	100.0%	12	100.0%	37	100.0%	
I am satisfied with r	esearch	conducted	by the L	SU AgCe	enter.	_					
Strongly Agree	6	66.7%	5	62.5%	3	33.3%	4	33.3%	18	47.4%	
Agree	2	22.2%	3	37.5%	5	55.6%	7	58.4%	17	44.7%	
Total	8	88.9%	8	100.0%	8	88.9%	11	91.7%	35	92.1%	
Disagree	1	11.1%	0	0.0%	1	11.1%	0	0.0%	2	5.3%	
Strongly Disagree	0	0.0%	0	0.0%	0	0.0%	1	8.3%	1	2.6%	
Total	1	11.1%	0	0.0%	1	11.1%	1	8.3%	3	7.9%	
Grand Total	9	100.0%	8	100.0%	9	100.0%	12	100.0%	38	100.0%	

Source: Prepared by legislative auditor's staff using survey responses.

Appendix E Summary of Results of Survey on Childcare Provider Training

Appendix E: Summary of Results of Survey on Childcare Provider Training

	Centra	l Region	Cresce	nt Region	Northea	st Region	Northwe	est Region	Т	otals
Training topics were relevant.										
Strongly Agree	11	64.7%	8	38.1%	7	77.8%	11	73.3%	37	59.7%
Agree	6	35.3%	12	57.1%	2	22.2%	4	26.7%	24	38.7%
Total	17	100.0%	20	95.2%	9	100.0%	15	100.0%	61	98.4%
Disagree	0	0.0%	1	4.8%	0	0.0%	0	0.0%	1	1.6%
Strongly Disagree	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	0	0.0%	1	4.8%	0	0.0%	0	0.0%	1	1.6%
Grand Total	17	100.0%	21	100.0%	9	100.0%	15	100.0%	62	100.0%
I have used what I learned.	now to han	dle different si	tuations.							
Strongly Agree	11	64.7%	10	50.0%	6	66.7%	8	53.3%	35	57.4%
Agree	6	35.3%	10	50.0%	3	33.3%	6	40.0%	25	41.0%
Total	17	100.0%	20	100.0%	9	100.0%	14	93.3%	60	98.4%
Disagree	0	0.0%	0	0.0%	0	0.0%	1	6.7%	1	1.6%
Strongly Disagree	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	0	0.0%	0	0.0%	0	0.0%	1	6.7%	1	1.6%
Grand Total	17	100.0%	20	100.0%	9	100.0%	15	100.0%	61	100.0%
Summary of Relevant Comments:	on proper l Other com	nation obtained nand-washing p ments indicated nt, and busines	procedures I that provi	and learning h	ow to keep	a log on the	refrigerator	and freezer te	mperat	

	Centra	al Region	Crescer	nt Region	Northea	st Region	Northwe	est Region	1	otals
Classes were offered at conven	ient times									
Strongly Agree	5	29.4%	11	52.3%	5	55.6%	7	46.7%	28	45.2%
Agree	10	58.8%	9	42.9%	4	44.4%	8	53.3%	31	50.0%
Total	15	88.2%	20	95.2%	9	100.0%	15	100.0%	59	95.2%
Disagree	1	5.9%	1	4.8%	0	0.0%	0	0.0%	2	3.2%
Strongly Disagree	1	5.9%	0	0.0%	0	0.0%	0	0.0%	1	1.6%
Total	2	11.8%	1	4.8%	0	0.0%	0	0.0%	3	4.8%
Grand Total	17	100.0%	21	100.0%	9	100.0%	15	100.0%	62	100.0%
Summary of Relevant Comments:	recommen Saturday.	ndents who disa ded Saturday c								on
Classes were offered at conven	ient locati	1 1								1
Strongly Agree	7	41.2%	12	57.1%	4	44.4%	9	60.0%	32	51.7%
Agree	7	41.2%	8	38.1%	5	55.6%	6	40.0%	26	41.9%
Total	14	82.4%	20	95.2%	9	100.0%	15	100.0%	58	93.6%
Disagree	2	11.8%	0	0.0%	0	0.0%	0	0.0%	2	3.2%
Strongly Disagree	1	5.9%	1	4.8%	0	0.0%	0	0.0%	2	3.2%
Total	3	17.6%	1	4.8%	0	0.0%	0	0.0%	4	6.4%
Grand Total	17	100.0%	21	100.0%	9	100.0%	15	100.0%	62	100.0%
Summary of Relevant Comments:	classes wa	disagreed with s offered in the aggested that cl	Lafayette o	or Opelousas a	reas until 1					
The training facility provided	. –							1 1		•
Strongly Agree	10	58.8%	12	60.0%	5	55.6%	9	60.0%	36	59.0%
Agree	5	29.4%	7	35.0%	4	44.4%	6	40.0%	22	36.1%
Total	15	88.2%	19	95.0%	9	100.0%	15	100.0%	58	95.1%
Disagree	2	11.8%	1	5.0%	0	0.0%	0	0.0%	3	4.9%
Strongly Disagree	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	2	11.8%	1	5.0%	0	0.0%	0	0.0%	3	4.9%
Grand Total	17	100.0%	20	100.0%	9	100.0%	15	100.0%	61	100.0%
Summary of Relevant Comments:	Comments	were "Neatly a	arranged";	"Building is v	ery drab a	nd scary"; and	d "It was ol	cay."		

		Centra	l Region	Crescei	nt Region	Northea	st Region	Northwo	est Region	Т	otals
Training materi	als were useful										
Strongly Agree		8	47.1%	10	47.6%	7	77.8%	9	60.0%	34	54.8%
Agree		9	52.9%	11	52.4%	2	22.2%	6	40.0%	28	45.2%
	Total	17	100.0%	21	100.0%	9	100.0%	15	100.0%	62	100.0%
Disagree		0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Strongly Disagree		0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Total	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Grand Total	17	100.0%	21	100.0%	9	100.0%	15	100.0%	62	100.0%
Summary of Relev	ant Comments:	The only re	ecommendation	ı was "Moı	e group discu	ssion so th	at providers ca	an share inp	out."		
I would like mor	e classes with	this train	er.								
Strongly Agree		9	52.9%	8	38.1%	6	66.7%	9	60.0%	32	51.7%
Agree		6	35.3%	12	57.1%	3	33.3%	6	40.0%	27	43.5%
	Total	15	88.2%	20	95.2%	9	100.0%	15	100.0%	59	95.2%
Disagree		2	11.8%	1	4.8%	0	0.0%	0	0.0%	3	4.8%
Strongly Disagree		0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Total	2	11.8%	1	4.8%	0	0.0%	0	0.0%	3	4.8%
	Grand Total	17	100.0%	21	100.0%	9	100.0%	15	100.0%	62	100.0%
The trainer was	knowledgeable	e about th	e subject ma	atter.							
Strongly Agree	C	10	58.8%	14	66.7%	8	88.9%	11	73.3%	43	69.4%
Agree		7	41.2%	7	33.3%	1	11.1%	4	26.7%	19	30.6%
-	Total	17	100.0%	21	100.0%	9	100.0%	15	100.0%	62	100.0%
Disagree		0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Strongly Disagree		0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Total	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
	Grand Total	17	100.0%	21	100.0%	9	100.0%	15	100.0%	62	100.0%

	Centra	al Region	Cresce	nt Region	Northea	ast Region	Northwo	est Region	Т	otals
I would choose the LSU AgCer	iter over o	other traine	rs.							
Strongly Agree	8	47.1%	10	47.6%	5	71.4%	12	80.0%	35	58.3%
Agree	6	35.3%	11	52.4%	2	28.6%	3	20.0%	22	36.7%
Total	14	82.4%	21	100.0%	7	100.0%	15	100.0%	57	95.0%
Disagree	3	17.6%	0	0.0%	0	0.0%	0	0.0%	3	5.0%
Strongly Disagree	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	3	17.6%	0	0.0%	0	0.0%	0	0.0%	3	5.0%
Grand Total	17	100.0%	21	100.0%	7	100.0%	15	100.0%	60	100.0%
Summary of Relevant Comments:	One respon	ndent who agre	ed with thi	s statement sai	d: "If new	materials offe	ered we h	ave used all th	ne work	shops."
My childcare facility has impro	oved as a	result of the	classes.							
Strongly Agree	8	47.1%	8	38.1%	3	33.3%	12	85.7%	31	50.8%
Agree	9	52.9%	10	47.6%	6	66.7%	2	14.3%	27	44.3%
Total	17	100.0%	18	85.7%	9	100.0%	14	100.0%	58	95.1%
Disagree	0	0.0%	3	14.3%	0	0.0%	0	0.0%	3	4.9%
Strongly Disagree	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	0	0.0%	3	14.3%	0	0.0%	0	0.0%	3	4.9%
Grand Total	17	100.0%	21	100.0%	9	100.0%	14	100.0%	61	100.0%
Summary of Relevant Comments:	have learned more consti	e providers saided to have more derate of other ent grants for no se they have to	e patience v s, how to s ew materia	with the childre hare, and how	en. They s to appreci	said they have ate one anothe	also learne er. They als	d how to teacl o said that the	h childr y have	en to be received

	Centra	al Region	Cresce	nt Region	Northe	ast Region	Northw	est Region	1	Totals
I am satisfied with the training	that was	provided to	me.							
Strongly Agree	8	47.1%	12	60.0%	7	77.8%	11	78.6%	38	63.3%
Agree	9	52.9%	8	40.0%	2	22.2%	3	21.4%	22	36.7%
Total	17	100.0%	20	100.0%	9	100.0%	14	100.0%	60	100.0%
Disagree	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Strongly Disagree	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Grand Total	17	100.0%	20	100.0%	9	100.0%	14	100.0%	60	100.0%
Overall Comments Made by Respondents	related cla	dents (43.5%) o sses. Some cor and weeknights	nments ref	erred to the day	ys and tim	es classes wer	e offered,	with most men	tioning	that
Source: Prepared by legislative audito	r's staff usir	ng survey respo	nses.							

Appendix F

Summary of Results of Telephone Survey on Family and Consumer Sciences -Family Development

Appendix F: Summary of Results of Telephone Survey on Family and Consumer Sciences - Family Development

	Central Region		Crescent Region		Northeast Region		Northwest Region		Totals	
	Were you satisf	ied overall witl	n the Family D	evelopment pr	ograms conduc	eted by the LS	U AgCenter in	ı fiscal year 20	03?	
Yes	12	100.0%	14	100.0%	9	90.0%	8	100.0%	43	97.7%
No	0	0.0%	0	0.0%	1	10.0%	0	0.0%	1	2.3%
Total	12	100.0%	14	100.0%	10	100.0%	8	100.0%	44	100.0%
	Were the progra	ams offered by	the AgCenter	in fiscal year 2	2003 relevant to	those needs?				
Yes	8	88.9%	10	76.9%	9	81.8%	7	87.5%	34	82.9%
No	1	11.1%	3	23.1%	2	18.2%	1	12.5%	7	17.1%
Total	9	100.0%	13	100.0%	11	100.0%	8	100.0%	41	100.0%

What do you think the needs of the people in your community are in relation to Family Development?								
 parenting skills training transportation issues family health education employment housing education childcare 	 information and classes concerning care for the elderly parenting skills classes literacy education safety employee assistance nutrition education 	 nutrition parenting skills training youth programs decreased unemployment rate unemployment housing health 	 parenting skills training nutrition education family financial management workforce preparation health-related training childcare 					

Central Region	Crescent Region	Northeast Region	Northwest Region	То
(Continued)	 care of the elderly family resolve management children's programs food safety and nutrition 			
 po you have any recommend religious aspect to programs more character programs offer childcare provider training classes at night rather than weekends 	 market or advertise programs more tap into school system and AARP to promote awareness gear programs toward the urban/inner-city population add more staff expand distribution of food handouts to the elderly 	 more nutrition and health programs increase attendance at programs parenting programs that are accessible by mothers who are in school; be sensitive more programs for 18 to 35 year olds 	More demonstrations - people remember more of what they see than what they hear	
Other relevant comments				
 attendance is good good interaction character programs are wonderful doing a really good job keeps us informed glad to have them as a resource 	 approachable, user-friendly work with Juvenile Justice life skills classes are needed need more personnel always have good resources need more outreach and marketing 	 multi-parish agents are a bad idea re-org may have been a handicap doing a good creative job keep up the good work childcare provider training is great 	 very responsive to community extensive parent resources doing a wonderful job advisory committee is productive Community Leadership and Economic Development class was excellent we appreciate what they 	

Source: Prepared by legislative auditor's staff using survey responses.

Appendix G LSU AgCenter's Response



OFFICE OF THE CHANCELLOR

101 J. Norman Efferson Hall - LSU Baton Rouge, Louisiana 70803 Post Office Box 25203 Baton Rouge, Louisiana 70894-5203 (225)578-4161 Fax: (225)578-4143 Web site: www.lsuagcenter.com

RESEARCH (225)578-4181 **EXTENSION** (225)578-4141

Administrative Services (225)578-4162

Budget and Finance (225)578-4164

Corporate Relations and Public Service Activities (225)578-4238

> Facilities Planning (225)578-873 | Fax: (225)578-6032

Multicultural Diversity (225)578-4161

Sponsored Programs 104 J. Norman Efferson Hall Baton Rouge, LA 70803 P.O. Box 25071 Baton Rouge, Louisiana 70894-5071 (225)578-8235 Fax: (225)578-6032

Ag Leadership 241 Knapp Hall - LSU Baton Rouge, Louisiana 70803 Post Office Box 25100 Baton Rouge, Louisiana 70894-5100 (225)578-6395 (225)578-7569

Communications 128 Knapp Hall - LSU Baton Rouge, Louisiana 70803 Post Office Box 25100 Baton Rouge, Louisiana 70894-5100 (225)578-2263 Fax: (225)578-4524

Institutional Research and Organization Development 115 Knapp Hall - LSU Baton Rouge, Louisiana 70803 Post Office Box 25100 Baton Rouge, Louisiana 70894-5100 (225)578-6194 (225)578-2478

> International Programs 118 Knapp Hall - LSU Baton Rouge, Louisiana 70803 Post Office Box 16090 Baton Rouge, Louisiana 70893 (225)578-6963 Fax: (225)578-6775

December 12, 2003

Grover C. Austin Assistant Legislative Auditor 1600 North Third Street Baton Rouge, Louisiana 70802

RE: LSU Agricultural Center Performance Audit Report

Dear Mr. Austin:

The LSU AgCenter concurs with the results of the Office of Legislative Auditor's Performance Audit Report of the LSU Agricultural Center as of December 2003. Our detailed responses to each of the recommendations are attached.

I wish to take this opportunity to thank you and your staff for the professionalism and courtesies extended to my staff during the course of this audit. It has been a real pleasure. If you have any questions, you may contact me or Mark Legendre at (225) 578-4161.

Sincerely,

William B. Richardson, Chancellor and Chalkley Family Endowed Chair

/sk

C: William L. Jenkins
Bill Brown
Paul Coreil
Mark Legendre

LSU Agricultural Center Performance Audit Response Page 1

Recommendation #1: The LSU AgCenter should strengthen its oversight of parish advisory committees used to assess stakeholder needs. Specifically, the AgCenter should develop policies and procedures that accomplish the following: a) ensure that all extension interests are represented by parish advisory committees, and b) help facilitate involvement of committee members.

We agree that improvements can and should be made in parish advisory committee representation and member orientation training. We plan to immediately develop a parish advisory committee agent training program that will be implemented in all 8 regions within the next year. The training will include identification and recruitment of all interest groups and proper committee member orientation that leads to full involvement of all members.

Recommendation #2: The LSU AgCenter should determine whether legislative action is required to obtain access to the Department of Social Service's complaint database. If legislative action is required, the AgCenter should work with legislative staff to develop appropriate legislation. Once access if gained, the AgCenter should use information from the database to help plan the content of its childcare provider programs.

We will evaluate what actions (legislative or administrative approval) may be necessary to gain access to the DSS database. We agree that this data would be valuable in developing childcare provider program educational content.

Recommendation #3: The LSU AgCenter should strengthen its evaluation efforts by using or expanding the use of the following evaluation methods:

- -satisfaction surveys
- -pre- and post-tests and/or post- then pre-test surveys
- -follow-up surveys
- -direct observations
- -existing records and data
- -comparison groups
- -long-term or longitudinal studies
- -cost-benefit analysis

We fully agree with this recommendation and will continue to expand and add appropriate evaluation methods for all major programming initiatives statewide.

LSU Agricultural Center Performance Audit Response Page 2

Recommendation #4: The LSU AgCenter should collaborate with other colleges and schools within the LSU System to allow graduate students to conduct evaluations of research and extension activities. This approach would give the students the opportunity to practice program evaluation concepts for school projects or theses and provide the LSU AgCenter with evaluation resources at little or no cost.

We have utilized student-based degree achieving research projects to evaluate extension programs within the School of Human Resource Education and Workforce Development (SHREWD) on many occasions in the past. We agree that degree-oriented student research is an excellent way to efficiently evaluate AgCenter research and extension programs, and we plan to continue to seek opportunities for expanding these efforts.

Recommendation #5: The LSU AgCenter should determine whether legislative action is necessary to obtain access to Department of Education student records. If legislation is needed, the LSU AgCenter should work with legislative staff to introduce appropriate legislation. The LSU AgCenter should use the student data in evaluation of 4-H programs. The LSU AgCenter should also determine whether other databases exist that could enhance its evaluation efforts.

We will evaluate what actions (legislative or administrative approval) may be necessary to gain access to Department of Education student databases that may help determine the impact of 4-H youth development programs, especially programs targeting school-based students. We agree that this data would be valuable in developing 4-H educational program content and in the evaluation of implemented programs

Recommendation #6: The LSU AgCenter should continue to train its employees on how to develop and write outcome and impact statements. Future training should include an increased focus on how to develop proper outcome and impact statements that contain all necessary elements and describe achieved results in a specific manner.

We agree that continued faculty training is needed on outcome and impact statement development. We will continue to develop and implement a faculty-targeted training action plan that will focus on the proper elements of well written outcome and impact statements that clearly delineates achieved program results.

LSU Agricultural Center Performance Audit Response Page 3

Recommendation #7: The LSU AgCenter should develop a centralized database of stakeholder's information. The LSU AgCenter should also develop a process for keeping the data in this database current and accurate. A database of this type would help the LSU AgCenter distribute information and communicate with stakeholders more effectively and efficiently.

We fully agree that a comprehensive stakeholder database would be very beneficial in helping to extend research-based information to targeted clientele and evaluate program benefits, customer satisfaction and end-user adoption. We have been and will continue to explore opportunities for developing a web-based stakeholder database using our soon to be implanted Content Management System. Additionally, we plan to expand and improve existing parish-based stakeholder databases in an effort to allow for parish and region-specific information transfer and program evaluation.